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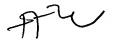




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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO
10/723,083	11/26/2003	Illimar Altosaar	0109144.143 USI	5920
75	90 01/13/2006		EXAM	INER
Jane M. Love,			MCELWAIN, I	ELIZABETH F
300 Park Avenu		OIPE	ART UNIT	PAPER NUMBER
New York, NY	10022	40	1638	
		(FEB 1 7 2006 章)	DATE MAILED: 01/13/200	6 ·
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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
	10/723,083	ALTOSAAR ET AL.
Office Action Summary	Examiner	Art Unit
	Elizabeth F. McElwain	1638
The MAILING DATE of this communication app Period for Reply	pears on the cover sheet with the c	orrespondence address
A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period of Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailine earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tin will apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).
Status		
1)⊠ Responsive to communication(s) filed on 20 C	ctober 2005.	
	action is non-final.	
3) Since this application is in condition for allowa		secution as to the merits is
closed in accordance with the practice under E		
Disposition of Claims		
·	26 27 and 20 25 inform monding :	- the analisation
4) Claim(s) <u>2,4,6,7,9,10,12,14,16,17,19,20,22,24</u> 4a) Of the above claim(s) is/are withdra		n the application.
5) Claim(s) 2,4,6,7,9,12,14,16,17,19,22,24,26,27	•	
6)⊠ Claim(s) <u>2,4,0,7,9,12,14,10,17,19,22,24,20,27</u> 6)⊠ Claim(s) <u>10,20 and 30</u> is/are rejected.	,29 and 37-35 Is/are allowed.	
		,
7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/o	r alastian rapuirament	
8) Claim(s) are subject to restriction and/o	r election requirement.	
Application Papers		
9) The specification is objected to by the Examine	er.	•
10)⊠ The drawing(s) filed on 20 October 2005 is/are	: a)⊠ accepted or b)□ objected	to by the Examiner.
Applicant may not request that any objection to the	drawing(s) be held in abeyance. See	e 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correct	ion is required if the drawing(s) is obj	ected to. See 37 CFR 1,121(d).
11)☐ The oath or declaration is objected to by the Ex		
Priority under 35 U.S.C. § 119		
12)⊠ Acknowledgment is made of a claim for foreign	ndority under 35 U.S.C. & 119(a)	-(d) or (f)
a) ☑ All b) ☐ Some * c) ☐ None of: 1. ☑ Certified copies of the priority document		-(a) or (i).
2. Certified copies of the priority document		on No
3. Copies of the certified copies of the prior		
application from the International Bureau		ed in this National Stage
* See the attached detailed Office action for a list	1 77	d
·	or the certified copies not receive	u.
•		
Amarka		
Attachment(s) 1) Notice of References Cited (PTO-892)	4) 🕅 1-4 1 6	(DTO 440)
2) Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948)	4) ⊠ Interview Summary (Paper No(s)/Mail Da	(PTO-413) te. <i>1/6/06</i> .
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)	5) 🔲 Notice of Informal Pa	atent Application (PTO-152)
Paper No(s)/Mail Date <u>12/12/05</u> .	6) Other:	

Application/Control Number: 10/723,083

Art Unit: 1638

DETAILED ACTION

Response to Amendment

The amendment filed October 20, 2005 has been entered.

Claim Rejections - 35 USC § 112

- 1. The following is a quotation of the first paragraph of 35 U.S.C. 112:
 - The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
- 2. Claims 10, 20 and 30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The recitation of "nucleotide sequence 55-435 of" with regard to SEQ ID NO: 1 does not find support in the application, as originally filed. Amendment of the claims to delete this phrase would overcome the rejection.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

Art Unit: 1638

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth F. McElwain whose telephone number is (571) 272-0802. The examiner can normally be reached on increased flex time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on (571) 272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elizabeth F. McElwain, Ph.D.

Primary Examiner Art Unit 1638

	Application No.	Applicant(s)
Interview Summary	10/723,083	ALTOSAAR ET AL.
interview Summary	Examiner	Art Unit
	Elizabeth F. McElwain	1638
All participants (applicant, applicant's representative, PTO	personnel):	
(1) Elizabeth F. McElwain.	(3)	
(2) <u>Kristen Joslyn</u> .	(4)	
Date of Interview: 03 January 2006.		
Type: a)⊠ Telephonic b)□ Video Conference c)□ Personal [copy given to: 1)□ applicant 2	2)☐ applicant's representativ	/e]
Exhibit shown or demonstration conducted: d) Yes If Yes, brief description:	e)⊠ No.	
Claim(s) discussed: 10,20 and 30.		
Identification of prior art discussed: none.		
Agreement with respect to the claims f)☐ was reached. g)⊠ was not reached. h)□	N/A.
Substance of Interview including description of the general reached, or any other comments: <u>Claims 10, 20 and 30 apport the case in condition for allowance</u> .		
(A fuller description, if necessary, and a copy of the amend allowable, if available, must be attached. Also, where no callowable is available, a summary thereof must be attached	opy of the amendments that	
THE FORMAL WRITTEN REPLY TO THE LAST OFFICE A INTERVIEW. (See MPEP Section 713.04). If a reply to the GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER INTERVIEW DATE, OR THE MAILING DATE OF THIS INTIFILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW DATE ON THE SUBSTANCE OF THE INTERVIEW DATE OF THE SUBSTANCE OF THE INTERVIEW DATE.	last Office action has already OF ONE MONTH OR THIRT ERVIEW SUMMARY FORM,	y been filed, APPLICANT IS Y DAYS FROM THIS WHICHEVER IS LATER, TO
Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.	Examiner's sigr	nature, if required

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner, (The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully
- describe those arguments which he or she feels were or might be persuasive to the examiner.) 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

PTO/SB/08a/b (07-05)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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Su	bstitute for form 1449A/B/PT	0		Complete if Known		
1				Application Number	10/723083-Conf. #5920	
11	NFORMATION	I DI	SCLOSURE	Filing Date	November 26, 2003	
S	TATEMENT B	3Y /	APPLICANT	First Named Inventor	Illimar ALTOSAAR	
· -				Art Unit	1638	
	(Use as many sh	eets as	necessary)	Examiner Name	Elizabeth F. McElwain	
Sheet	Sheet 1 of 3			Attorney Docket Number	0109144.00143US1	

	U.S. PATENT DOCUMENTS								
Examiner	Cite	Occument Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where				
initials*	No.	Number-Kind Code ² (#known)	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear				
	A1	US-5,677,474	10-14-1997	Rogers, J. C.	ALL				
	A2	US-5,889,189	03-30-1999	Rodriguez, R. L.	ALL				
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	FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	10		

		NON PATENT LITERATURE D						
Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the magazine, journal, serial, symposium, catalog, etc.), date, and/or country where	page(s), volume-issue nu		T²			
gm	C1	Aoyama and Chua, "A glucocortocoid-mediated trar plants," The Plant Journal Vol. 11, No. 3, pp. 605-6	• .	system in transgenic				
1	C2	Brandstatter, I. and Kieber, J.J., "Two genes with si rapidly and specifically induced by cytokinin in Arab 1019 (1998)	milarity to bacterial re					
\Box	C3	Burgess, A.W., et al. "Purification and properties of granulocyte-macrophage colony stimulating factor,"						
T	C4	Caddick et al, "An ethanol inducible gene switch for metabolism," Nature Biotech. Vol. 16, pp. 177-180 (plants used to manip					
C5		Cantrell, M.A., et al. "Cloning, sequence, and expression of a human granulocyte/macrophage colony-stimulating factor," Proc Natl Acad Sci USA Vol. 82, pp. 6250-6254 (1985).						
	C6	Cheng, X et al., "Rice transformation by Agrobacterium infection," In: Recombinant Proteins from Plants: Production and Isolation of Clinically Useful Compounds. (eds. C. Cunningham and A.J.R. Porter) Humana Press, pp. 1-9 (1998)						
	C7	Cheng et al., "Agrobacterium-transformed rice plants expressing synthetic CrylA(b) and CrylA(c) genes are highly toxic to striped stem borer and yellow stem borer," Proc Natl Acad Sci USA Vol. 95, pp. 2767-2772 (1998)						
7	C8	Denecke et al, "Protein secretion in plant cells can c Cell, Vol. 2, pp. 51-59 (1990)	occur via a default pat	hway," The Plant				
	C 9	Ernst, J.F., et al. *O-glycosylation and novel process factor/GM-CSF fusions by Saccharomyces cerevisia (1987).						
Elr	C10	Gatz, C., "Chemical Control of Gene Expression," A 48, pp. 89-108 (1997)	nn. Rev. Plant Physic	ol. Plant Mol. Biol. Vol.				
Examiner Signature		GAMELL	Date Considered	1/6/06				

┌ s	ubstitute for form 1449A/B/P	TO		Complete If Known		
				Application Number	10/723083-Conf. #5920	
1	NFORMATIO	N DISC	LOSURE	Filling Date	November 26, 2003	
	STATEMENT	BY AP	PLICANT	First Named Inventor	Illimar ALTOSAAR	
				Art Unit	1638	
	(Use as many sl	heets as ned	essary)	Examiner Name	Elizabeth F. McElwain	
Shee	t 2	of	3	Attorney Docket Number	0109144.00143US1	

gun	C11	Jaeger, G.D, et al. "Boosting heterlogous protein producti- seeds using Phaseolus vulgaris regulatory sequences," N 1265-1268 (2002).		
	C12	James, E.A., et al., "Production and characterization of bis secreted by genetically modified plant cells," Protein Exp. (2000).	ress Purif, Vol.	19, pp. 131-138
	C13	Kakimoto, T., *CKI1, a histidine kinase homolog implicated Science, Vol. 274, pp. 982-985 (1996)		
	C14	Kaushansky, K., et al. "Role of carbohydrate in the function colony-stimulating factor," Biochemistry Vol. 26, pp. 4861-	4867 (1987).	
	C15	Kitamura, T., et al., "Establishment and characterization of proliferates dependently on GM-CSF, IL-3, or erythropoiet 323-334 (1989)	tin," J Cellular I	Physiol, Vol. 140, pp.
	C16	Lee, F., et al. "Isolation of cDNA for a human granulocyte- factor by functional expression in mammalian cells," Proc 4360-4364 (1985).	Natl Acad Sci	USA Vol. 82, pp.
	C17	Metcalf, D, "Control of granulocytes and macrophages: Maspects," Science Vol. 254, pp. 529-533 (1991).	olecular, cellula	ar, and clinical
	C18	Moonen, P., et al. "Increased biological activity of deglyco granulocyte/macrophage colony-stimulating factor production Natl Acad Sci USA Vol. 84, pp. 4428-4431 (1987).	sylated recomb ed by yeast or	binant human animal cells," Proc
	C19	Murray et al., "Codon usage in plant genes," Nuc Acids Re	es. Vol. 17, pp.	477-498 (1989)
	C20	Okamoto, M., et al. "Amplification and high-level expression macrophage colony-stimulating factor in human lymphoble Bio/Technology, Vol. 8, pp. 550-553 (1990).	astoid Namalwa	a cells,"
	C21	Quesniaux and Jones. "Granulocyte-macrophage colony- Handbook, (ed. Angus T.W.) Academic Press pp. 637-670) (1998).	
	C22	Saalbach, I., et al. "High-level expression of a single-chair transgenic pea seeds." J. Plant Physiol. Vol. 158, pp. 529-	Fv fragment (scFv) antibody in
	C23	Salter et al, "Characterisation of the ethanol-inducible alc transgenic plants," The Plant Journal Vol. 16, No. 1, pp. 1	gene expression	on system for
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	C26	Stoger, E., et al. "Cereal crops as viable production and st ScFv antibodies," Plant Mol Biol., Vol. 42, pp. 583-590 (20	orage systems 00).	for pharmaceutical
	C27	Tobias et al., "The N-end rule in bacteria," Science, Vol. 2:	54, pp. 1374-1	377 (1991)
	C28	Ulmasov, T., et al., "Aux/IAA proteins repress expression of and highly active synthetic auxin response elements," The (1997)	of reporter general Plant Cell, Vol	es containing natural I. 9, pp. 1963-1971
	C29	Varshavsky, "The N-end rule: functions, mysteries, uses," pp. 12142-12149 (1996)		
	C30	Vitale, A., et al., "The role of endoplasmic reticulum in prot intracellular transport," Journal of Experimental Botany, Vo. (1993).	ol. 44, No. 266,	рр. 1417-1444
(m)	C31	Wong, G.G., et al. "Human GM-CSF: Molecular cloning of purification of the natural and recombinant proteins," Scien	the complemence, Vol. 228, p	entary DNA and op. 810-815 (1985).
eminer nature		STMER.	Date Considered	1/6/06

Signature 5412889 Considered

PTC/SB/08a/b (07-05)

Approved for use through 07/31/2006. OMB 0551-0031

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Su	bstitute for form 1449A/	в/РТО		Complete If Known		
				Application Number	10/723083-Conf. #5920	
	NFORMATI	ON DISC	LOSURE	Filing Date	November 26, 2003	
5	STATEMEN'	T BY AP	PLICANT	First Named Inventor	Illimar ALTOSAAR	
				Art Unit	1638	
	(Use as man)	y sheets as nec	essary)	Examiner Name	Elizabeth F. McElwain	
Sheet	3	of	3	Attorney Docket Number	0109144.00143US1	

Em		Zheng, Z., et al. "5'distal and proximal cis-acting regulator elements are required for developmental control of a rice seed storage protein glutelin gene," The Plant Journal, Vol. 4, No. 2, pp. 357-366 (1993).	
en	C33	Zheng, Z.W., et al. "The bean seed storage protein beta-phaseolin is synthesized, processed, and accumulated in the vacuolar type-II protein bodies of transgenic rice endosperm," Plant Physiol Vol. 109, pp. 777-786 (1995).	

*EXAMINER: initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. *Applicant's unique citation designation number (optional). *See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. *Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). *For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. *Skind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. *Applicant is to place a check mark here if English language Translation is attached.

Examiner 1/6/06 Date Signature 5412889 Considered